

November 1971

Brief 71-10459

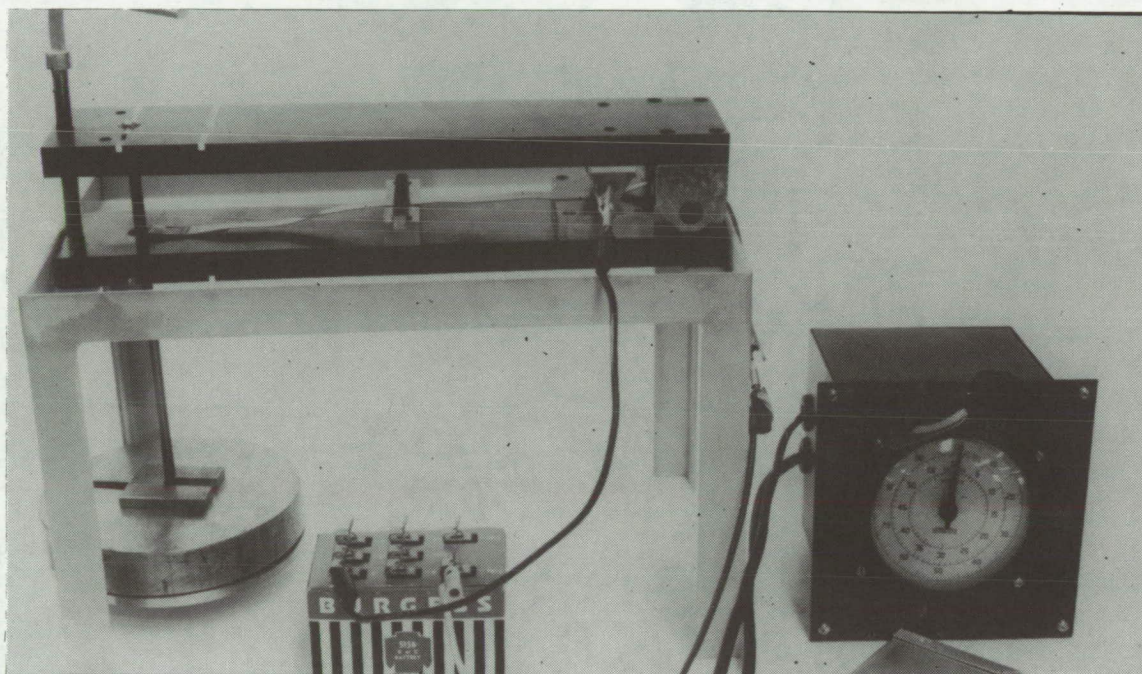
# NASA TECH BRIEF

## Marshall Space Flight Center



NASA Tech Briefs announce new technology derived from the U.S. space program. They are issued to encourage commercial application. Tech Briefs are available on a subscription basis from the National Technical Information Service, Springfield, Virginia 22151. Requests for individual copies or questions relating to the Tech Brief program may be directed to the Technology Utilization Office, NASA, Code KT, Washington, D.C. 20546.

### Cable Insulation Cut-Through Tester



A portable tester measures the weight load required to cut through the various types of insulation on either shielded or unshielded round wires and flat conductor cables. Tests can be performed at ambient conditions or in an environmental chamber. The device can accurately measure the cut-through load within a specified time or the time when cut-through occurs at a specified load.

The cable specimen (up to 1 in. wide) is placed on an anvil beneath a knife edge supported on a fulcrum. The knife edge lever is loaded with weights placed in a holder. The fulcrum is located to give a 6 to 1 leverage ratio. Prior to the start of a test, a weight adjustment screw is turned clockwise until mechanical resistance is encountered. One lead from the counter is connected to the conductors of the cable specimen. The counter will indicate the time,

to within 0.1 sec, required for the straight edge to cut through the insulation and make contact with the conductors.

#### Note:

Requests for further information may be directed to:

Technology Utilization Officer  
Code A&TS-TU  
Marshall Space Flight Center  
Huntsville, Alabama 35812  
Reference: B71-10459

#### Patent status:

No patent action is contemplated by NASA.

Source: E. C. Campbell and W. E. Norton  
Marshall Space Flight Center  
(MFS-20114)  
Category 08